

SHOULDER INSTABILITY

Regaining Stability and Control



WHAT IS SHOULDER INSTABILITY?

You stretch to reach something in the back seat of the car or on a high shelf. Suddenly, your shoulder joint feels like it's slipping out of place. Does this sound familiar? If so, you probably have a condition called **shoulder instability**. It can happen after parts of your shoulder joint are stretched or damaged. Without these parts to hold the joint tight, your shoulder joint can slip unexpectedly, moving too far in certain directions.



The Cause of Shoulder Instability

The most common cause of shoulder instability is a shoulder injury. Falling or running into something, damaging your shoulder during sports, or lifting something the wrong way can overstretch your shoulder joint, loosening the parts of the joint that keep it tight. Once your shoulder joint is loosened, it may be more likely to slip out of the socket again and again.



This booklet is not intended as a substitute for professional medical care. Only your doctor can diagnose and treat a medical problem.

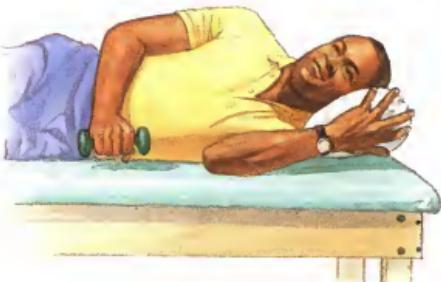
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Making Your Shoulder Stable Again

The treatment goal of shoulder instability is to get your shoulder back under your control. An **orthopaedist** (a doctor specializing in treatment of and surgery for bone or muscle problems), often together with a **physical therapist** (a rehabilitation specialist), will evaluate your shoulder and determine the best ways to make it stable again. Treatment for shoulder instability may involve a combination of physical therapy and surgery. After your shoulder is stabilized, regular exercise can help keep it that way.

Evaluation

Your doctor will examine your shoulder and perform some tests to determine what type of instability you have and how severe it is. After the evaluation, you and your doctor will discuss a treatment plan.



Treatment

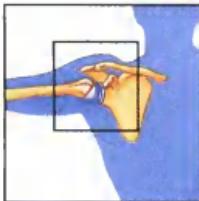
Physical therapy, surgery, or both may be needed to get your shoulder back under control. You and your doctor will decide what combination of treatments best suits your lifestyle and goals.

Maintenance

Once your shoulder instability is treated, you can help keep your shoulder strong and stable by continuing to exercise.

A TIGHT, STABLE SHOULDER

Your shoulder is the most flexible joint in your body, allowing you to throw fastballs, lift a heavy suitcase, scratch your back, and reach in almost any direction. Your shoulder joint is like a ball in a small, shallow saucer. The ball, or head, of the arm bone (**humerus**) rests in the shoulder socket (**glenoid**). Parts of the joint called **stabilizers** hold the humeral head and glenoid together to keep the joint stable.



Your shoulder joint is known as a "ball-and-socket" joint.



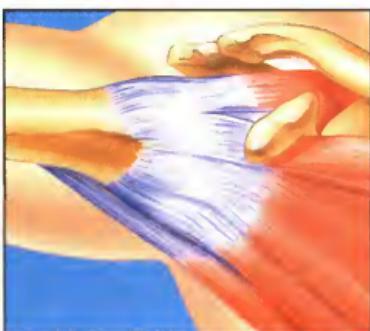
The humeral head is the top part of your arm bone. It rests inside the glenoid.

The rotator cuff is made up of muscles and tendons. Muscles are tissues that pass across the joint and move bones. Tendons are strong fibers that attach the muscle to bone.

The capsule is a sheet of tough fibers that surrounds the humeral head and the glenoid.

The glenoid is your shoulder socket.

The labrum is a ring of tough, flexible tissue (cartilage) on the rim of the glenoid. It attaches the glenoid to the capsule and makes the glenoid socket deeper.



The Capsule

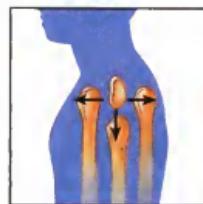
The capsule is called a **static stabilizer**. It stabilizes the joint by enclosing the humeral head and the glenoid. This stops the humeral head from leaving the glenoid when you raise your arm.

The Rotator Cuff

The rotator cuff is called a **dynamic stabilizer**. The rotator cuff muscles and tendons stabilize your shoulder by pressing the humeral head into the glenoid when you raise your arm.

A LOOSE, UNSTABLE SHOULDER

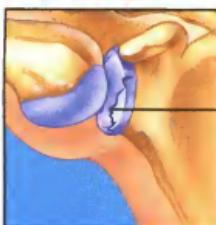
Because your shoulder joint is so flexible, your arm may move too far, pushing the humeral head completely out of the glenoid. This is called **dislocation**. When the head is pushed only partway out of the glenoid, it's called **subluxation**. Subluxing or dislocating your shoulder can stretch or tear your capsule and damage other parts of the joint. This makes the humeral head more likely to slip out of the glenoid again. Here are types of damage that can cause instability:



Your shoulder joint can become unstable in one or more directions.



Torn capsule



Fractured glenoid



Stretched capsule



Torn labrum

Dislocations can tear the capsule.

When the humeral head pushes out of the glenoid, the capsule can tear. The torn capsule can't stop the humeral head from moving out of the glenoid, so the humeral head may slip out over and over again.

Dislocations can damage the glenoid and humeral head.

When your shoulder dislocates, the humeral head can hit the glenoid rim, fracturing the glenoid and denting the humeral head. This damage makes the humeral head more likely to slip out of the glenoid again and again.

Subluxations can stretch the capsule.

If your humeral head pushes only partway out of the glenoid, the capsule may stretch rather than tear. The stretched capsule is too loose to stop the humeral head from leaving the glenoid when you raise your arm.

Dislocations and subluxations can tear the labrum.

When it pushes all or partway out of the glenoid, the humeral head can tear the labrum. Since the labrum helps hold the humeral head inside the glenoid, a torn labrum means the humeral head may slip out of the glenoid.

YOUR ORTHOPAEDIC EVALUATION

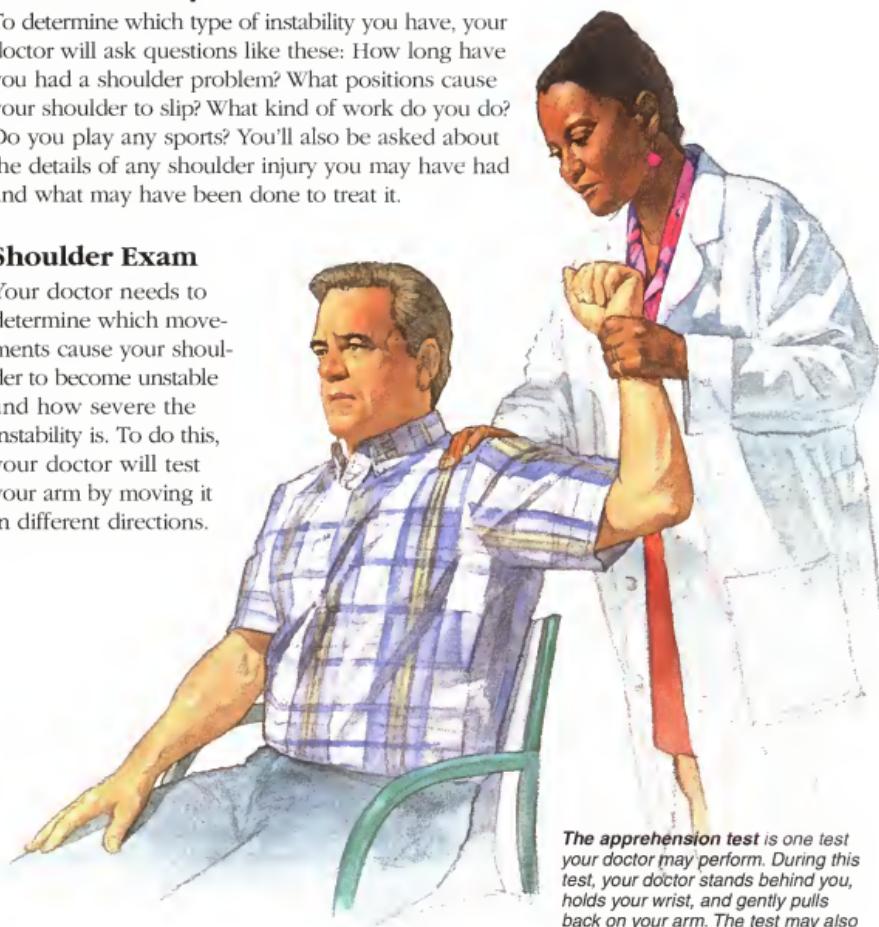
Before developing a plan to treat your shoulder instability, your orthopaedist first evaluates your shoulder. This includes taking your medical history and examining your shoulder. To help detect damage to your shoulder joint and to help rule out other types of shoulder problems, x-rays and, possibly, imaging tests are performed. Your orthopaedist will discuss the results of your evaluation with you.

Medical History

To determine which type of instability you have, your doctor will ask questions like these: How long have you had a shoulder problem? What positions cause your shoulder to slip? What kind of work do you do? Do you play any sports? You'll also be asked about the details of any shoulder injury you may have had and what may have been done to treat it.

Shoulder Exam

Your doctor needs to determine which movements cause your shoulder to become unstable and how severe the instability is. To do this, your doctor will test your arm by moving it in different directions.



The apprehension test is one test your doctor may perform. During this test, your doctor stands behind you, holds your wrist, and gently pulls back on your arm. The test may also be done while you're lying down.



Glenoid

Humeral head

An x-ray of a dislocated shoulder joint

X-rays

Your orthopaedist may request that you have x-rays taken of your shoulder in various positions. These x-rays may show the humeral head slipping out of the glenoid. X-rays can also show fractures or cracks of the glenoid or humeral head.

Imaging Tests

Your orthopaedist may recommend imaging tests to help detect damage to your joint.

Magnetic resonance imaging

(MRI) uses magnetic fields and radio waves to produce images of your shoulder. MRI may reveal problems with your capsule, labrum, or rotator cuff.

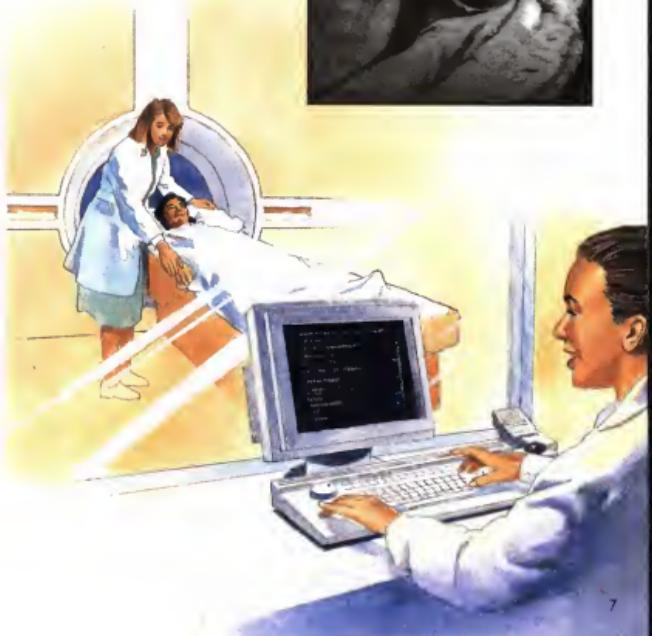
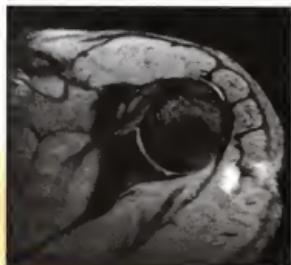
Computed tomography

(CT) uses a special scanner and a computer to produce images of bones and soft tissue. It can help detect problems with the glenoid, humeral head, capsule, or labrum.

Arthrography

is a procedure where dye is injected into the shoulder and an x-ray, CT scan, or MRI is taken. The image that results can help detect problems with your rotator cuff or labrum.

An MRI may reveal problems with bone and soft tissue.



PLANNING YOUR TREATMENT

Based on the results of your evaluation, your orthopaedist will work with you to develop a treatment plan to help get your shoulder back in control. This treatment plan may include physical therapy, surgery, or both. Certain factors, such as the direction and severity of your instability and what activities you like to do, help your orthopaedist determine what type of treatment is best.

Physical Therapy

Physical therapy can help restore stability, strength, and control to your shoulder. It helps you regain control by strengthening your dynamic stabilizers—the rotator cuff and other shoulder muscles—and training them to take over for the parts of the shoulder that are damaged and can no longer do their job. For some people with shoulder instability, physical therapy alone is enough to stabilize the shoulder. For others, physical therapy is most effective when used in conjunction with surgery.



Surgery

Surgery can help restore shoulder stability and control by tightening and repairing your shoulder's static stabilizers. If your orthopaedist thinks that surgery is a good option, he or she will discuss the goals of the procedure with you and may show you what will be done to tighten and repair your shoulder joint. Surgery may make the shoulder tighter than before your injury, so physical therapy after the procedure is often necessary to help you regain flexibility. It also helps you regain strength while your shoulder is healing.



Factors Your Doctor Considers

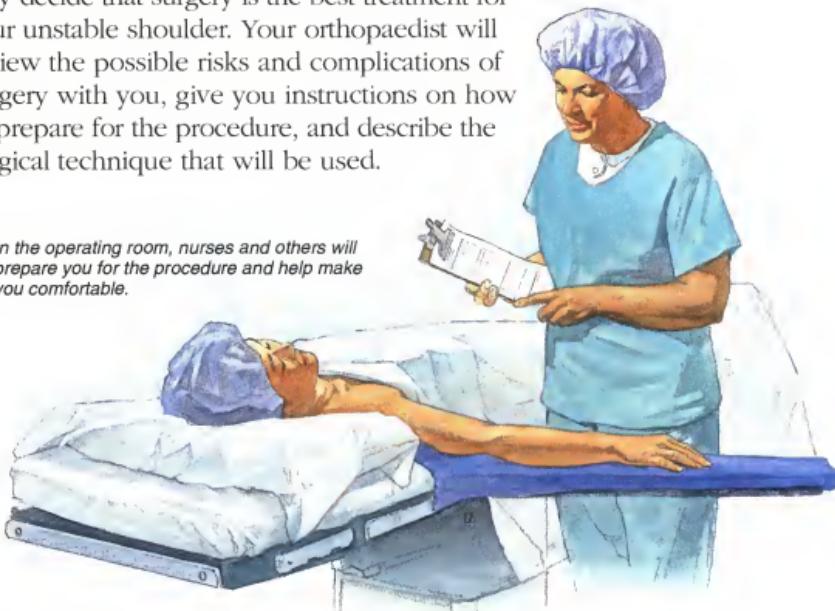
Whether surgical or nonsurgical treatment is best for you depends on many factors. Your orthopaedist considers these factors carefully and discusses them with you. Factors may include:

- How long you've had an unstable shoulder
- The direction in which your shoulder is slipping
- The extent of damage to the joint that has to be repaired
- Whether there was any damage to the muscles or nerves in your arm or shoulder
- What kind of lifestyle you lead and what activities or sports you want to be able to participate in

REGAINING CONTROL WITH SURGERY

After carefully weighing the options and perhaps attempting to treat your shoulder with physical therapy, you and your orthopaedist may decide that surgery is the best treatment for your unstable shoulder. Your orthopaedist will review the possible risks and complications of surgery with you, give you instructions on how to prepare for the procedure, and describe the surgical technique that will be used.

In the operating room, nurses and others will prepare you for the procedure and help make you comfortable.



Understanding Risks and Complications

As with any surgery, complications may arise. These include:

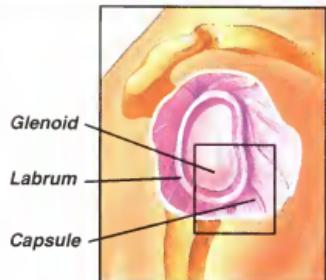
- Infection
- Damage to nerves or blood vessels
- Moving or breaking of surgical anchors
- Excessive loss of shoulder flexibility
- Recurrence of instability

Preparing for Surgery

The night before the procedure, don't eat or drink anything after midnight, because your stomach must be empty when you receive anesthesia. Bring any x-rays, scans, or forms your doctor needs with you to the hospital. After you check in, the anesthesiologist may talk to you about the type of anesthetic you'll be given. This anesthetic keeps you free of pain during surgery.

Arthroscopic Examination

After the anesthetic is given, your orthopaedist may examine your shoulder with a procedure called **arthroscopy**. Specially designed instruments are inserted into the shoulder through tiny incisions. Images of your joint are displayed on a video monitor. Arthroscopy can give the orthopaedist a detailed look at your shoulder joint and reveal damage that has not already been detected.



During the Surgery

During surgery, your orthopaedist can tighten a torn or stretched capsule, reattach a torn labrum, and repair other damage to your shoulder joint. Tightening or repairing the capsule and the labrum can be done using one of the techniques described below. Your orthopaedist may use an open procedure or arthroscopy.

Capsule Repair

If the capsule is stretched, your orthopaedist may be able to repair it.



Shifting the Capsule

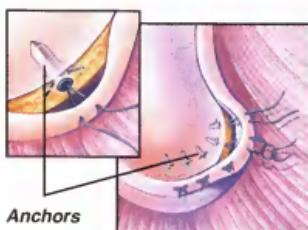
Sutures, also called stitches, can be used to tighten the capsule. The excess capsule is folded underneath itself and stitched in place.

Shrinking the Capsule

Heat, created by radio waves, is used to shrink the tissue fibers. This tightens the loose capsule.

Glenoid Repair

If the capsule and labrum are torn, your orthopaedist can reattach them to the glenoid.



Using Sutures

Sutures, also called stitches, can be placed directly through the glenoid. The sutures are passed through small holes drilled into the bone.

Using Surgical Anchors

Surgical anchors may be inserted into small holes drilled in the glenoid. Sutures connected to the top of the anchors reattach the capsule and labrum.

Depending on your procedure, you may go home the same day or spend one or two days in the hospital. Before you go home, you'll be instructed on how to take care of your shoulder while it's healing. Your shoulder will heal best if you follow these instructions.

Recovering in the Hospital

After the procedure, your shoulder is covered with a dressing. Your arm will be immobilized in a sling or brace. Medication and cold packs can help control pain after surgery. Sometimes a soft tube (catheter) is used to deliver pain medication right into the joint. In such cases, the tube is taken out within days. You won't be able to use your arm, so arrange for someone to drive you home.



Recovering at Home

Once home, keep your dressing dry and clean. Don't remove your sling or brace or try to use your arm until your orthopaedist says it's OK. If he or she tells you to begin moving the arm, do so only as directed. In the days after surgery, you may visit your orthopaedist to have your dressing checked. If you have stitches that need to be removed, a follow-up visit will be scheduled.



Call Your Doctor If:

- You have an increase in pain or swelling
- Your arm tingles or feels numb
- You have a fever or chills
- Your shoulder bleeds or drains

REGAINING CONTROL WITH PHYSICAL THERAPY

Physical therapy can help you regain control of your shoulder by strengthening your shoulder's dynamic stabilizers—the rotator cuff and other muscles around your shoulder joint. Strong muscles can help take over for damaged static stabilizers. Your shoulder may be treated with physical therapy alone or in conjunction with surgery. In either case, carefully following your therapist's instructions is essential for your program's success.



Your physical therapist may measure your shoulder's range of motion with an instrument called a goniometer.

Your Evaluation

Before developing a physical therapy program, your physical therapist consults with your orthopaedist to discuss any special needs you may have. He or she also tests your shoulder's strength and flexibility and talks to you about your goals and expectations.

Physical Therapy

Your physical therapy program is designed to restore your shoulder's control and improve its function. The program is tailored to your specific needs, so it's essential that you follow your therapist's instructions closely. That means keeping your scheduled appointments and following up at home, as instructed. Your dedication to your physical therapy program may help you avoid surgery or, if you've had surgery, can help you regain the full use of your shoulder.

WORKING WITH YOUR PHYSICAL THERAPIST

Your physical therapist will work closely with you to show you the best way to exercise and to help prevent you from injuring yourself. If you've had surgery, your therapist will be especially careful to help you protect your shoulder while it's healing. The exact exercises that your therapist teaches you will depend on your diagnosis and whether or not you've had surgery. Here are some common types of exercises.



Range-of-Motion Exercises

Range-of-motion exercises are a series of controlled stretches that help your shoulder regain its flexibility. Your physical therapist helps you with these exercises and guides your progress to prevent you from overstretching. These exercises are especially useful after surgery.



Manual Therapy

Manual therapy helps strengthen your shoulder muscles and increase range of motion. You may work your muscles against pressure applied by your therapist. This improves muscle strength without putting you at risk for injury. Stretching or massage may be used to reduce stiffness and make your joint more flexible.

Strength Training

As your muscles get stronger, your physical therapist may have you use weights or special machines. They can help you exercise and strengthen your shoulder further. Your therapist will show you how to use the equipment safely.

KEEPING YOUR SHOULDER FIT

As your shoulder function improves, you may be given exercises to continue on your own. These exercises are designed to keep your shoulder strong, stable, and in control. You can do them at home or at your local gym. Follow your physical therapist's instructions carefully, and let him or her know if you have pain while you're exercising. Below are some exercises that your therapist may recommend.

Taffy Pull

1. Place rubber tubing against a doorjamb and close the door. Grasp the tubing with the hand on the side you want to exercise and stand away from the door so the tubing is tight.
2. Stand sideways to the door. With your arm against your side and your elbow in an L shape (90°), rotate your arm across your chest.
3. Slowly return to the starting position.
4. Repeat 5–15 times.



Wings

1. Stand with your arms at your sides, holding a hand weight or a can of soup in each hand. With your elbows straight, turn your arms in so your thumbs point toward the floor.
2. Keeping your thumbs pointed toward your little toes, lift your arms to waist level and slightly forward, never higher than your shoulders.
3. Slowly lower your arms.
4. Repeat 5–15 times.



Drawbridge

1. Lie on the side opposite the shoulder you want to exercise. Use your arm to support your head.
2. Grasp a hand weight or a can of soup in front of you. Bend your elbow into an L shape (90°), keeping your upper arm and elbow against your side.
3. Keeping your wrist straight, slowly lift the weight until your forearm is parallel to the floor, then slowly lower the weight.
4. Repeat 5–15 times.



STRONG AND STABLE AGAIN

Getting an unstable shoulder back in control requires dedication to your treatment program. This dedication pays off when you can stop worrying about your joint slipping at unexpected moments. You can go back to doing the things you like to do and enjoy having a shoulder that's strong and stable.

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